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In the news

FROM ENA 2017

The International Conference on Molecular Targets and Cancer Therapeutics, an annual combined effort of the EORTC, NCI, and AACR (abbreviated as ENA), was held in Philadelphia this year. The central theme of this meeting is translational research — the growing field of studies that extend beyond preclinical reseach, but are not yet clinical.

In the initial session, speakers from different clinical institutions explained how clinical decisions based on gene sequencing are made at their centres. Unsurprisingly, workflows vary according to the health-care context in which they are implemented. A common goal of the programmes presented, however, is to increase the number of patients that subsequently enrol in clinical trials.

Other sessions were devoted to discussions of how tumour cells evade the immune system during tumorigenesis, not only before clinical presentation but also during anticancer treatment. In particular, considerable research efforts are being placed on determining why many patients do not respond or develop resistance to immunotherapies. Intriguingly, evidence for the role of antitumour immunity as a major determinant of cancer evolution was presented. In addition, neoantigen identification was underscored as a key element in clinical decision-making. Indeed, with the increasing interest in individualized treatments based on the neoantigens expressed by each patient's tumour, researchers need to be able to predict which few epitopes among many mutant peptides might be associated with T-cell recognition and clinical benefit.

Other topics discussed included important drivers of cancer progression, such as aneuploidy, epigenetic changes, or metabolic alterations. In recognition of the importance of the tumour microenvironment, key elements of the stromal compartment also received attention. Overall, the role of technological advances in providing new insights into tumour biology was highlighted. Nevertheless, an increased knowledge of such mechanisms does not always precede the identification of actionable targets in cancer cells or their microenvironment — collaborative and multidisciplinary research is required. Meetings such as ENA are crucial to bring researchers together and foster collaborative efforts.

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